



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

A6

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,803	02/27/2001	Hiroshi Kohda	50212-181	3700
8933	7590	09/03/2002		
DUANE MORRIS, LLP ATTN: WILLIAM H. MURRAY ONE LIBERTY PLACE 1650 MARKET STREET PHILADELPHIA, PA 19103-7396			EXAMINER VALENCIA, DANIEL E	
			ART UNIT 2874	PAPER NUMBER

DATE MAILED: 09/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/763,803	KOHDA ET AL.
	Examiner Daniel E Valencia	Art Unit 2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 July 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-41 is/are pending in the application.
 - 4a) Of the above claim(s) 30 and 32-36 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-29, 31 and 37-41 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) 1-41 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 27 February 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>46,79</u>	6) <input type="checkbox"/> Other:

DETAILED ACTION

claims

Applicant's election of invention III (25-29 and 31) in Paper No. 10 is acknowledged. In addition, groups I and II will also be examined. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 30 and 32-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 10.

Inventorship

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 6, 21, 26, and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The abovementioned claims recite the limitation of the base material being of "prism shape"; however, as known in the art, a prism can take any number of shapes. It is vague and unclear what is meant by "prism shape". Appropriate correction is required.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 1 describes the fiber-arraying member having "fiber fixing grooves extending along radial directions of a virtual circle". Dependent claims 5 and 6, further limit the subject matter as being "of prism shape". It is vague and unclear how the base material has

“grooves extending along radial directions” and is of “prism shape”. Appropriate correction is required.

Claims 7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 1 describes the fiber-arraying member having “fiber fixing grooves extending along radial directions of a virtual circle”. Dependent claims 7-10, further limit the subject matter as being “of pyramid shape”. It is vague and unclear how the base material has “grooves extending along radial directions” and is of “pyramid shape”. Appropriate correction is required.

Claims 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 20 describes the fiber-arraying member having “fiber fixing grooves extending along radial directions of a virtual circle”. Dependent claims 21 and 22, further limit the subject matter as being “of prism shape” and then “of pyramid shape” respectively. It is vague and unclear how the base material has “grooves extending along radial directions” and is of “prism shape” and “pyramid shape”. Appropriate correction is required.

Claims 26-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 25 describes the fiber-arraying member having “fiber fixing grooves extending along radial directions of a virtual circle”. Dependent claims 26 and 27, further limit the subject matter as being “of prism shape” and then “of pyramid shape” respectively. It is vague and unclear how the base material has “grooves extending along radial directions” is of “prism shape” or “pyramid shape”. Appropriate correction is required.

Claims 38 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 37 describes the fiber-arraying member having “fiber fixing grooves extending along radial directions of a virtual circle”. Dependent claims 38 and 39, further limit the subject matter as being “of prism shape” and then “of pyramid shape” respectively. It is vague and unclear how the base material has “grooves extending along radial directions” is of “prism shape” or “pyramid shape”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-3 and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hotta Japanese Patent No. 61185715. Refer to the appropriate drawings or parts of the abstract. Regarding claims 1 and 20, Hotta discloses an optical switch (see drawing 1) comprising: an optical fiber arraying member (ref 4) in which a plurality of optical fiber fixing grooves extending along radial directions (ref 3) of a virtual circle are radially formed in a predetermined surface of a base material; a plurality of array side optical fiber fixing grooves of said optical fiber arraying member; and a moving side optical fiber (ref 2) to be selectively optically connected to either of said plurality of array side optical fibers, wherein said moving side optical fiber and said optical fiber arraying member are rotated relative to each other about a center axis of said virtual circle to select said array side optical fiber to be optically connected to said moving side optical fiber. Hotta further discloses that the optical switch further comprises a carrying device (ref 12) for carrying the moving side optical fiber, and an arraying member-rotating device for rotating said optical fiber arraying member, wherein the moving side optical fiber is optically connected to the array side optical fiber by the carrying device and the arraying member rotating device, as mentioned in claim 2. Referring to claim 3, Hotta's disclosure shows that the optical fibers are arrayed such that the end faces thereof are directed toward the center axis of the virtual circle (see drawing 1).

Claims 15-17 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee U.S. Patent No. 5,317,659. Refer to the appropriate drawings or parts of the specification. Regarding claims 15 and 24, Lee discloses an optical switch (see fig 1) comprising: an optical fiber

arraying member (ref 120) in which a plurality of optical fiber fixing grooves (see fig 6 not labeled) are formed along the directions of the generator of a conical side face of a base material, which has one of the conical side face as its own side face; a plurality of array side optical fibers (ref 655a and 655b) arrayed in said plurality of optical fiber fixing grooves of said optical fiber arraying member; and a moving side optical fiber (ref 650a and 650b) to be selectively optically connected to either of said plurality of array side optical fibers, wherein said moving side optical fiber and said optical fiber arraying member are rotated relative to each other about a center axis of said cone and said moving side optical fiber is selectively optically connected to said array side optical fiber. Lee's disclosure also shows that his switch includes a carrying device (ref 635) for carrying said moving side optical fiber, and an arraying member rotating device for rotating said optical fiber arraying member about the center axis of the cone, wherein said moving side optical fiber is selectively optically connected to said array side optical fiber by said carrying device and said arraying member rotating device, as described by instant claim 16. Referring to claim 17, Lee discloses that the array side optical fibers are arrayed so that the end faces thereof are directed toward a vertex of the cone (see fig 6).

Claims 12, 13, 15, 18, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Morillon French Patent No. 2 634 030. Refer to the appropriate drawings. Regarding claims 12 and 23, Morillon discloses an optical switch (see fig 1 and 2) comprising: an optical fiber arraying member (ref 2) in which a plurality of optical fiber fixing grooves (ref 21) are formed along a direction of a generator of a cylindrical side face of a base material, which has one of the cylindrical side surface and part of the cylindrical side surface as its own side face; a plurality of

array side optical fibers (ref E2) arrayed in said plurality of optical fiber fixing grooves of said optical fiber arraying member; and a moving side optical fiber to be selectively optically connected to either of said plurality of array side optical fibers, wherein said moving side optical fiber (ref E1) and said optical fiber arraying member are rotated relative to each other about a center axis of said cylinder and moving side optical fiber is optically connected to said array side optical fiber. Morillon's disclosure also shows that his switch has a carrying device (ref 1) for carrying said moving side optical fiber, and an arraying member (ref 2) rotating device for rotating device said optical fiber arraying member about the center axis of the cylinder, wherein said moving side optical fiber is selectively optically connected to said array side optical fiber by said carrying device and said arraying member rotating device, as mentioned by instant claim 13. Regarding claims 15, Morillon discloses an optical switch comprising: an optical fiber arraying member in which a plurality of optical fiber fixing grooves are formed along the directions of the generator of a conical side face of a base material (see fig 2), which has one of the conical side face as its own side face; a plurality of array side optical fibers arrayed in said plurality of optical fiber fixing grooves of said optical fiber arraying member; and a moving side optical fiber to be selectively optically connected to either of said plurality of array side optical fibers, wherein said moving side optical fiber and said optical fiber arraying member are rotated relative to each other about a center axis of said cone and said moving side optical fiber is selectively optically connected to said array side optical fiber. Morillon's disclosure shows that the array side optical fibers are arrayed so that the end faces (ref F2) thereof are directed along the direction opposite the vertex of the cone, as mentioned by instant claim 18.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotta in view of Okubo Japanese Patent No. 09197303. Refer to the appropriate drawings or parts of the abstract. Hotta as applied above, discloses a rotary optical switch with a majority of the claimed limitations of the present invention. Hotta however, fails to teach the use of an arcuate pressing member for positioning the fibers.

. On the other hand, Okubo discloses an optical switch that teaches the limitation that the Hotta reference fails to teach. Regarding claim 11, Okubo discloses a rotary switch, wherein the moving side optical fiber comprises a plurality of optical fibers and each moving side optical fiber is positioned on said optical fiber arraying member (see drawing 1, ref 3) by a pressing member of an arcuate shape having the same center as the virtual circle. Both Okubo and Hotta teach similar rotating optical switches that use fiber-arraying members with V-grooves extending along radial directions of a virtual circle. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the rotary optical switch disclosed by Hotta to include the type of pressing member disclosed by Okubo.

Claims 5-8, 10, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morillon French Patent No. 2 634 030. Refer to the appropriate drawings. Morillon as applied above discloses a rotary optical switch having a majority of the claimed limitations of the present invention. Regarding part of claims 5, 7, 21, and 22, Morillon discloses an optical switch having a plurality of fiber fixing grooves that are radially formed in at least two side faces of the base material, said base material and said moving side optical fiber (ref E1) are rotated relative to each other about a center axis to select one side face of the base material, and said moving side optical fiber is optically connected to either of the array side fibers (see fig 1, ref E2) arrayed on said one side face selected. Morillon further discloses that his switch further comprises a carrying device (ref 12) for carrying moving side optical fiber, and a moving side fiber rotating device for rotating said moving side optical fiber about the center axis of the virtual circle, wherein the moving side optical fiber is optically connected to the array side optical fiber by base material rotating means, said carrying device (ref 1), and said moving side rotating device, as explained in instant claims 6 and 8. Referring to part of claim 10, Morillon's disclosure shows that the array side optical fibers are arrayed so that the faces thereof are directed along directions opposite the vertex (see fig 2). Although Morillon does not disclose a pyramid or a prism shaped fiber-arraying member, the reference does teach that the arraying member can be a variety of different shapes, such as cylindrical or conical. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the rotary optical switch disclosed by Morillon to include additional shapes, such as a pyramid or a prism, for the fiber arraying member than the ones disclosed by the reference.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morillon in view Lee U.S. Patent No. 5,317,659. Refer to the appropriate drawings or parts of the specifications. Morillon as applied above, discloses a rotary optical switch with a variety of the claimed limitations of the present inventions. Specifically, Morillon discloses that the fiber-arraying member can be a variety of shapes. Morillon however; fails to teach that the array side optical fibers end faces face the vertex of the conical or pyramid shaped fiber-arraying member.

On the other hand, Lee discloses a conical fiber optic switch with a variety of the claimed limitations, but fails to teach a pyramid shape fiber-arraying member. Regarding claim 9, Lee discloses that his optical switch's (see fig 1) array side optical fibers are arrayed so that end faces thereof are directed toward the vertex of the base material (ref 111). Both Morillon and Lee disclose rotary optical switches having fiber-arraying members with v-grooves. Furthermore, Morillon teaches that the arraying member can take a multitude of shapes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to array the fibers on the arraying member, such that the end faces are directed toward the vertex, instead of away from the vertex, in the rotary optical switch disclosed by Morillon.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee U.S. Patent No. 5,317,659 in view of Okubo. Refer to the appropriate drawings or parts of the specification. Lee as applied above, discloses a conical fiber optic switch with a variety of the claimed limitations of the present invention. Lee however; fails to teach a fiber-pressing member for holding the fibers in the positioning grooves.

On the other hand, Okubo discloses an optical switch that teaches this limitation.

Regarding claim 19, Okubo discloses that each moving side fiber is positioned on said optical fiber arraying member by a pressing member having the same radius of curvature (see drawing 1, ref 3). Both Okubo and Lee disclose similar rotary optical fiber switches that employ fiber arraying members and v-grooves. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the pressing member disclosed by Okubo in the rotary switch disclosed by Lee.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotta in view of Nomura Japanese Patent No. JP 0524108⁵. Refer to the appropriate drawings or parts of the specification. Hotta as applied above, discloses an optical switch with a majority of the limitations of the claimed invention. Hotta however; fails to disclose the possibility of the end faces of the arrayed fibers facing away from the axis of the virtual circle.

On the other hand, Nomura discloses a rotary optical switch that teaches the limitation that the Hotta reference fails to teach. Regarding claim 4, Nomura's disclosure shows that the array side optical fibers of the rotary switch are arrayed so that the end faces thereof are directed along the directions opposite (drawing 6) to those toward the center axis of the virtual circle. Hotta and Nomura both teach similar rotary optical switches employing fiber arraying members, v-grooves, and moving side fibers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to face the ends of the fiber away from the axis of the virtual circle instead of toward the axis in the optical switch disclosed by Hotta.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morillon in view of Takimoto Japanese Patent No. JP 52049848. Refer to the appropriate drawings or parts of the specification. Morillon as applied above, discloses an optical rotary switching structure having a fiber-arraying member; wherein the arraying member can take a plurality of different shapes. Morillon however; fails to teach the use of curved pressing member for holding the optical fibers in their corresponding grooves.

On the other hand, Takimoto discloses a device for switching transmission lines of optical fibers that teaches the limitation that the Morillon reference lacks. Regarding claim 14, Takimoto's disclosure shows a switch (figure 3) where each moving side fiber is positioned on the optical fiber arraying member by pressing member (ref g) having a curved press surface, and a radius of curvature of said curved press surface is approximately equal to radius of curvature of the cylinder. Takimoto and Morillon disclose similar optical rotary switches that employ fiber arraying members (ref a1 or a2), grooves for the fibers, and moving side fibers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a curved pressing surface to position the moving side fibers in the fiber arraying member, in the switching structure disclosed by Morillon.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotta in view of Dahlgren U.S. Patent No. 4,991,922. Refer to the appropriate drawings or parts of the specification. Hotta as applied above, discloses a rotary optical switch with a majority of the claimed limitations of the present invention. Hotta however; fails to mention the method of forming the v-grooves in the fiber-arraying member of his device.

On the other hand, Dahlgren discloses an optical fiber coupler and method that teaches the method of forming v-grooves in a fiber-holding member. Regarding claim 25, Dahlgren discloses that the v-grooves in his optical device are produced by repeating the step of linearly moving a cutting tool along a predetermined direction (see col. 4, lines 9-10). Dahlgren teaches that it is advantageous to use a rotary cutting tool for producing v-grooves because it allows the production of a groove that is slightly larger than the fiber itself (see col. 4, lines 9-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the rotary cutting method disclosed by Dahlgren to form the radial v-grooves in the device disclosed by Hotta.

Claims 26-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morillon in view of Dahlgren U.S. Patent No. 4,991,922. Refer to the appropriate drawings or parts of the specification. Morillon as applied above, discloses an optical rotary switch having a fiber-arraying member that can take a plurality of shapes. Morillon however, fails to mention the method of creating the v-grooves in the fiber-arraying member of his device.

On the other hand, Dahlgren discloses an optical fiber coupler and method that teaches the method of forming v-grooves in a fiber-holding member. Regarding claim 26-29 and 31, Dahlgren discloses that the v-grooves in his optical device are produced by repeating the step of linearly moving a cutting tool along a predetermined direction (see col. 4, lines 9-10). Dahlgren teaches that it is advantageous to use a rotary cutting tool for producing v-grooves because it allows the production of a groove that is slightly larger than the fiber itself (see col. 4, lines 9-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the rotary cutting method disclosed by Dahlgren to form the radial v-grooves in the devices disclosed by Morillon.

Claims 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morillon in view of Watanabe U.S. Patent No. 5,446,810. Refer to the appropriate drawings or parts of the specification. Morillon as applied above, discloses an optical rotary switch having a fiber-arraying member that can take a plurality of shapes. Morillon however, fails to mention the method of arraying the fibers in the fiber-arraying member.

On the other hand, Watanabe discloses an optical switch, optical fiber arranging member and method of manufacturing the optical fiber arranging member that teaches the steps involved in arraying fibers that Morillon fails to mention. The steps of preparing the arraying member and rotating the member to fix the fibers would have been inherently carried out or made obvious by the device disclosed by Morillon. However, Morillon does not explicitly state the ends of the fiber have to be cut for alignment in the fiber-arraying member. Regarding this step mentioned in instant claims 37-39, Watanabe discloses the method of cutting the ends of the plurality of fibers to align the ends (see fig 4). Watanabe further discloses that his method uses a rotary blade for cutting the ends of the array side fibers, as described in instant claims 40 and 41. Watanabe teaches that it is advantageous to cut fiber ends to an appropriate length for aligning. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to cut the ends of the fiber being arrayed in the apparatus disclosed by Morillon.

Conclusion

The prior art documents submitted by the applicant in the Information Disclosure Statement filed on February 27, 2001, December 14, 2001, January 10, 2002, and July 2, 2002 have all been considered and made of record (note attached copy of form PTO-1449).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee U.S. Patent No. 4,896,935 discloses a fiber optic switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel E Valencia whose telephone number is (703)-305-4399. The examiner can normally be reached on Monday-Friday 9:30-6:00.

The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-7724 for regular communications and (703)-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

DV
Dan Valencia
August 26, 2002

John D. Lee
John D. Lee
Primary Examiner